



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,460	09/18/2003	Ashish Dubey	2033.66885	4335

24978 7590 06/16/2005

GREER, BURNS & CRAIN
300 S WACKER DR
25TH FLOOR
CHICAGO, IL 60606

EXAMINER

EDWARDS, LAURA ESTELLE

ART UNIT	PAPER NUMBER
----------	--------------

1734

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,460

Applicant(s)

DUBEY ET AL.

Examiner

Laura Edwards

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-20 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 8 and 10-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 012705.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Allowable Subject Matter

The indicated allowability of claims 3, 6, 7, and 9 has been withdrawn in view of the newly discovered reference(s) cited in the PCT European Search Report. Rejections based on newly cited reference(s) therein follow.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 4, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Fisher et al (US 2,276,244) for reasons set forth in the previous office action.

Fisher et al remain to anticipate the claimed invention because the main metering roll (13); companion roll, and even the roll (12) supporting the web are all illustrated in Fig. 1 as being driven in the same direction of rotation (see arrows) such that the slurry as shown flows over an upper outer peripheral surface of the metering roll in a direction of travel of the web for deposition onto the surface of the web.

Claims 1, 4, 6, 7, 9, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Lohse (US 4,796,559).

Lohse teaches a feed apparatus for use in depositing a viscous coating material upon a moving web having a direction of travel (A), comprising a main metering roll (having rotation arrow D); a companion roll (having rotation arrow E) disposed in closely spaced relation to said

Art Unit: 1734

metering roll to form a nip there between; the nip constructed and arranged to retain a supply of the coating material (5); and means for driving said rolls (not shown; see col. 4, lines 4-5) so that coating material retained in said nip progresses in the direction of travel of said web over an upper outer peripheral surface of said metering roll to be deposited upon the web (see Fig. 4).

With respect to claims 6, 7, and 9, see thickness control roll (element 1 in Fig. 4 having a blade 11 thereon).

Claims 1, 2, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Marchioli (FR 951985).

Marchioli teaches a feed apparatus for use in depositing a viscous coating material upon a moving web having a direction of travel comprising a main metering roll; a companion roll disposed in closely spaced relation to said metering roll to form a nip there between; the nip constructed and arranged to retain a supply of the coating material; and means for driving said rolls so that coating material retained in said nip progresses in the direction of travel of said web over an upper outer peripheral surface of said metering roll to be deposited upon the web (see Figs. 1 and 2).

Claims 1, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Komaki (US 4,050,864).

Komaki teaches a feed apparatus for use in depositing a viscous coating material upon a moving substrate or molding box surface having a direction of travel comprising a main metering roll (18); a companion roll (17) disposed in closely spaced relation to said metering roll to form a

Art Unit: 1734

nip there between; the nip constructed and arranged to retain a supply of the coating material; and means for driving said rolls (see arrows) so that coating material retained in said nip progresses in the direction of travel of the moving substrate over an upper outer peripheral surface of said metering roll to be deposited upon the web (see Figs. 2 and 4).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al (US 2,276,244) in view of Schaefer (US 3,640,245) for reasons set forth in the previous office action.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al (US 2,276,244) and Schaefer (US 3,640,245) as applied to claim 2 and further in view of Klein (US 4,287,846).

The teachings of Fisher et al and Schaefer have been mentioned above but neither teach or suggest the use of a non-stick material on sidewalls adjacent ends of the rolls. However, the use of TEFLON in coating applicator systems to prevent sticking of tacky material to a surface was known in the art at the time the invention was made as evidenced by Klein (see col. 2, lines 49-52). In light of the teachings of Klein, it would have been obvious to one of ordinary skill in the art to provide TEFLON coating on any surfaces in contact with the tacky coating material in the apparatus as defined by the combination above in order to prevent the coating material from sticking thereto. Alternatively, it would have been obvious to one of ordinary skill in the art to

Art Unit: 1734

make the endwalls of the apparatus as defined by the combination above from a non-stick material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claim 5 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Fisher et al (US 2,276,244) in view of Klein (US 4,287,846) for reasons mentioned in the previous office action.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al (US 2,276,244) in view of Reafler (US 5,132,148) for reasons set forth in the previous office action.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al (US 2,276,244) in view of Kohler et al (US 6,068,701) for reasons set forth in the previous office action.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lohse (US 4,796,559) in view of Schaefer (US 3,640,245).

The teachings of Lohse have been mentioned above but Lohse fails to teach or suggest end walls for pool of coating material. However, it was known in the art, at the time the invention was made, to provide a pool of material with end walls or end seals to prevent leakage of the material about sides of the two nip rolls forming a sump or pool of coating material as evidenced by Schaefer (see col. 2, lines 50-55). It would have been obvious to one of ordinary

Art Unit: 1734

skill in the art to provide end walls or end seals as taught by Schaefer about the pool or sump of material in the Lohse apparatus in order to provide a reservoir or cavity for the coating material in which the material would not leak about the sides of the two nip rolls.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lohse (US 4,796,559) and Schaefer (US 3,640,245) as applied to claim 2 above and further in view of Klein (US 4,287,846).

The teachings of Lohse and Schaefer have been mentioned above but neither teach or suggest the use of a non-stick material on sidewalls adjacent ends of the rolls. However, the use of TEFLON in coating applicator systems to prevent sticking of tacky material to a surface was known in the art at the time the invention was made as evidenced by Klein (see col. 2, lines 49-52). In light of the teachings of Klein, it would have been obvious to one of ordinary skill in the art to provide TEFLON coating on any surfaces in contact with the tacky coating material in the apparatus defined by the combination above, in order to prevent the coating material from sticking thereto. Alternatively, it would have been obvious to one of ordinary skill in the art to make the endwalls of the apparatus as defined by the combination above from a non-stick material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lohse (US 4,796,559) in view of Klein (US 4,287,846).

Art Unit: 1734

The teachings of Lohse have been mentioned previously but Lohse fails to teach or suggest using a non-stick resilient surface on the nip rolls. However, it was known in the coating art, at the time the invention was made, to provide TEFLON on at least one nip roll when using a viscous tacky coating material because of the known release properties of the TEFLON as evidenced by Klein (see col. 2, lines 47-51). It would have been obvious to one of ordinary skill in the art to provide TEFLON as taught by Klein on at least one or more of the nip rolls used by Lohse in order to prevent the lacquer coating material from adhering to the rolls. The use of TEFLON on both of the nips of Lohse is within the purview of one skilled in the art so as to minimize clumping of the lacquer material on the rolls and coating material waste.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lohse (US 4,796,559) in view of Reafler (US 5,132,148).

The teachings of Lohse have been mentioned above but Lohse fails to teach or suggest using a stainless steel surface on the nip rolls. However, it was known in the coating art, at the time the invention was made, to use stainless steel nip rolls when using tacky coating material because of the durability of the stainless steel as evidenced by Reafler (see col. 17, lines 44-46). It would have been obvious to one of ordinary skill in the art to provide stainless steel as the material used to make the nip rolls used by Lohse in order to provide rolls with a long lifetime. The use of stainless steel for the nip rolls of Lohse is within the purview of one skilled in the art so as to provide for a durable applicator system.

Art Unit: 1734

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lohse (US 4,796,559) in view of Kohler et al (US 6,068,701).

The teachings of Lohse have been mentioned above and while Lohse recognize the use of a doctor device (11) on the metering roll, Lohse fails to teach or suggest the use of a metering wire on the metering roll. However, it was known in the coating art, at the time the invention was made, to provide a removable wire based doctoring device on a nip roll in order to smooth out tacky coating on a moving web as evidenced by Kohler et al (see col. 6, lines 16-30). It would have been obvious to one of ordinary skill in the art to provide the removable wire based doctoring device as taught by Kohler et al in the Lohse apparatus in order to smooth out the coating and provide for uniform film of material to be applied to the moving web.

Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marchioli (FR 951985) in view of Klein (US 4,287,846).

The teachings of Marchioli have been mentioned above but Marchioli fails to teach or suggest the use of a non-stick material on sidewalls adjacent ends of the rolls. However, the use of TEFLON in coating applicator systems to prevent sticking of tacky material to a surface was known in the art at the time the invention was made as evidenced by Klein (see col. 2, lines 49-52). In light of the teachings of Klein, it would have been obvious to one of ordinary skill in the art to provide TEFLON coating on any surfaces in contact with the tacky coating material in the Marchioli apparatus in order to prevent the coating material from sticking thereto. Alternatively, it would have been obvious to one of ordinary skill in the art to make the endwalls of the Marchioli apparatus from a non-stick material since it has been held to be within the general skill

Art Unit: 1734

of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

The teachings of Marchioli have been mentioned above but Marchioli fails to teach or suggest using a non-stick resilient surface on the nip rolls. However, it was known in the coating art, at the time the invention was made, to provide TEFLON on at least one nip roll when using a viscous tacky coating material because of the known release properties of the TEFLON as evidenced by Klein (see col. 2, lines 47-51). It would have been obvious to one of ordinary skill in the art to provide TEFLON as taught by Klein on at least one or more of the nip rolls used by Marchioli in order to prevent the tacky coating material from adhering to the rolls. The use of TEFLON on both of the nip rolls of Marchioli is within the purview of one skilled in the art so as to minimize clumping of the coating material on the rolls and coating material waste.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Marchioli (FR 951985) in view of Reafler (US 5,132,148).

The teachings of Marchioli have been mentioned above but Marchioli fails to teach or suggest using a stainless steel surface on the nip rolls. However, it was known in the coating art, at the time the invention was made, to use stainless steel nip rolls when using tacky coating material because of the durability of the stainless steel as evidenced by Reafler (see col. 17, lines 44-46). It would have been obvious to one of ordinary skill in the art to provide stainless steel as the material used to make the nip rolls used by Marchioli in order to provide rolls with a long lifetime. The use of stainless steel for the nip rolls of Marchioli is within the purview of one skilled in the art so as to provide for a durable applicator system.

Art Unit: 1734

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komaki (US 4,050,864) in view of Schaefer (US 3,640,245).

The teachings of Komaki have been mentioned above but Komaki fails to teach or suggest end walls for pool of coating material. However, it was known in the art, at the time the invention was made, to provide a pool of material with end walls or end seals to prevent leakage of the material about sides of the two nip rolls forming a sump or pool of coating material as evidenced by Schaefer (see col. 2, lines 50-55). It would have been obvious to one of ordinary skill in the art to provide end walls or end seals as taught by Schaefer about the pool or sump of material defined in the area between the companion and metering rollers of the Komaki apparatus in order to provide a reservoir or cavity for the coating material so coating is prevented from leaking onto sides of the two rollers.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komaki (US 4,050,864) and Schaefer (US 3,640,245) as applied to claim 2 above and further in view of Klein (US 4,287,846).

The teachings of Komaki and Schaefer have been mentioned above but neither teach or suggest the use of a non-stick material on sidewalls adjacent ends of the rolls. However, the use of TEFLON in coating applicator systems to prevent sticking of tacky material to a surface was known in the art at the time the invention was made as evidenced by Klein (see col. 2, lines 49-52). In light of the teachings of Klein, it would have been obvious to one of ordinary skill in the art to provide TEFLON coating on any surfaces in contact with the tacky coating material in the apparatus as defined by the combination above in order to prevent the coating material from

Art Unit: 1734

sticking thereto. Alternatively, it would have been obvious to one of ordinary skill in the art to make the endwalls of the apparatus as defined by the combination above from a non-stick material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komaki (US 4,050,864) in view of Klein (US 4,287,846).

The teachings of Komaki have been mentioned previously but Komaki fails to teach or suggest using a non-stick resilient surface on the nip rolls. However, it was known in the coating art, at the time the invention was made, to provide TEFLON on at least one nip roll when using a viscous tacky coating material because of the known release properties of the TEFLON as evidenced by Klein (see col. 2, lines 47-51). It would have been obvious to one of ordinary skill in the art to provide TEFLON as taught by Klein on at least one or more of the nip rolls used by Komaki in order to prevent the tacky coating material from adhering to the rolls. The use of TEFLON on both of the nips of Komaki is within the purview of one skilled in the art so as to minimize clumping of the coating material on the rolls and coating material waste.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Komaki (US 4,050,864) in view of Reafler (US 5,132,148).

The teachings of Komaki have been mentioned above but Komaki fails to teach or suggest using a stainless steel surface on the nip rolls. However, it was known in the coating art, at the

Art Unit: 1734

time the invention was made, to use stainless steel nip rolls when using tacky coating material because of the durability of the stainless steel as evidenced by Reafler (see col. 17, lines 44-46).

It would have been obvious to one of ordinary skill in the art to provide stainless steel as the material used to make the nip rolls used by Komaki in order to provide rolls with a long lifetime.

The use of stainless steel for the nip rolls of Komaki is within the purview of one skilled in the art so as to provide for a durable applicator system.

Allowable Subject Matter

Claims 15-20 would be allowable.

Claims 8 and 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 8 would be allowable because there is no teaching or suggestion in the prior art of a feed apparatus for use in depositing a slurry upon a moving web having a direction of travel, comprising the combination of a main metering roll; a companion roll disposed in closely spaced relation to said metering roll to form a nip therebetween; said nip constructed and arranged to retain a supply of the slurry; means for driving said rolls so that slurry retained in said nip progresses over an upper outer peripheral surface of said metering roll to be deposited upon the web, and a thickness control roll disposed in close operational proximity to said metering roll for controlling the thickness of the slurry layer deposited upon the web by said apparatus wherein the metering roll, companion roll, and thickness control roll all rotate in the same direction.

Response to Arguments

Applicants' arguments filed 3/14/05 have been fully considered but they are not persuasive.

Applicants appear to contend that Fisher does not anticipate the claimed invention because of an error noted in the language of the Fisher specification (page 4, lines 45-47) wherein the specification conflicts with the drawing such that the coating material would not flow as Applicants' claimed invention. While this argument is well taken, the single drawing which is the face of the patent remains to anticipate the instantly claimed invention. Regardless of the error whether a typographical error via the specification or one illustrative in nature via the single drawing, one would acknowledge and appreciate the arrangement as shown for providing the nip rollers both rotating in the same direction for feeding coating material to a web in the travel direction thereof. Despite the imperfections of the Fisher patent, the claimed invention remains anticipated in light of the drawing on the face of the patent.

Applicants contend that in Fisher, the coating is deposited from the nip in a reverse direction to that of the web. This argument is not deemed persuasive because the coating material progresses through the nip to flow over the upper outer peripheral surface of the metering roll in the direction of web as shown in the single drawing.

Applicants contend that Schaefer fails to disclose or suggest the apparatus of claim 1 because Fisher fails to teach the apparatus of claim 1. This argument is not deemed persuasive because the teachings of Fisher do anticipate the claimed invention in light of the single figure such that the additional teaching of Schaefer is deemed proper.

Art Unit: 1734

Applicants contend that Klein does not teach non-stick nip rolls. This argument is not deemed persuasive in that Klein has merely been applied to illustrate two rolls forming an transfer application area or nip there between so as to apply tacking coating material to a substrate without the coating material sticking to a given roll surface. Klein provides prima facie evidence of the use of TEFLON, a well known and used non-stick coating, for treating the roll surface in the coating apparatus.

Applicants contend that there is no suggestion in Reafler to combine the teachings of use of a stainless steel roller with the apparatus to Fisher. This argument is not deemed persuasive because it is well known and conventional in the coating art to utilize a stainless steel roller for application of coating material to a substrate and Reafler merely provides evidence to that fact.

Applicants contend that the obvious rejection under Fisher and Kohler should be withdrawn because Kohler does not teach the use of the wire to prevent the flow of material as claimed. While Applicants' argument is well taken, Kohler provides prima facie evidence of known use of a wire device in a coating applicator system to remove or prevent to some degree the passage of coating material from one point to another. In other words, it is within the level of one skilled in the art to provide the wire device of Kohler pressed in engaging contact with the surface of a roll to prevent or stop the progression of material beyond the wire device. Therefore, Applicants' use of the wire device as claimed remains rejected.

Applicants contend that the rejections evidence picking and choosing features of various references and combining them when there is no suggestion in the reference to do so such that it is impermissible in the framework of the 103 statute to do so. With all due respect, the Examiner

Art Unit: 1734


has stayed within the guidelines of the 103 statute by providing applicable prior art including the proper motivation for the applied combinations as required by *Graham v. Deere*.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura Edwards whose telephone number is (571) 272-1227. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura Edwards
Primary Examiner
Art Unit 1734

Le
June 10, 2005